

A Strong Partnership Protects Interior Least Terns and Piping Plovers

Sand and Gravel Mining Companies in Nebraska Help Pave the Road to Recovery

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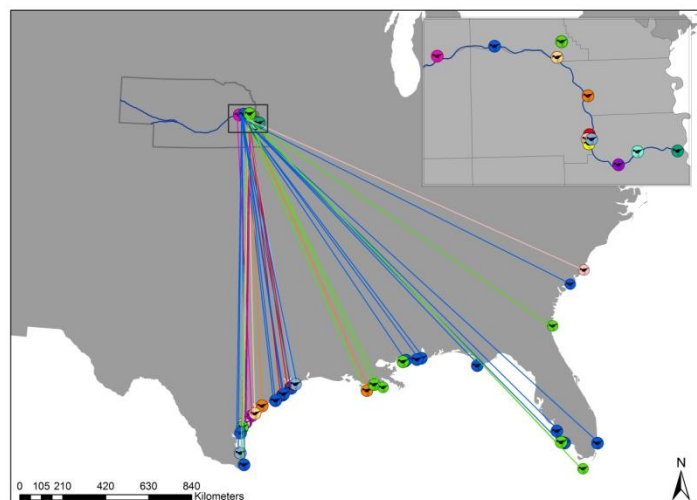


Photo Credit: Mary Bomberger Brown

A Piping Plover with identifying colored leg bands help biologists gain valuable information.

The fate of threatened and endangered species lies in the hands of those willing to go the extra mile to protect and recover their vulnerable populations. Since 1985, when they were added to the federal Endangered Species List, the endangered Interior Least Tern (*Sternula antillarum athalassos*) and the threatened Piping Plover (*Charadrius melodus*) have been relying on the United States Fish and Wildlife Service (USFWS) and Nebraska Game and Parks Commission (NGPC) to restore their populations in Nebraska. The Tern and Plover Conservation Partnership (TPCP) joined the effort in 1999. In addition, since the recovery's inception, sand and gravel mining companies in Nebraska teamed up with these organizations and have enthusiastically taken an integral role as tern and plover conservationists. Their past and future involvement just may be the answer to ensuring a positive future for these two imperiled species.

Interior Least Terns and Piping Plovers travel thousands of miles every year from their wintering grounds along the Gulf of Mexico and the Caribbean Sea to their breeding grounds in Nebraska and other Midwestern states. From late April until mid-August, Nebraska hosts these birds as they return to the same nesting areas year after year.



Piping Plovers banded along Nebraska's Lower Platte River fly south for the winter. The map shows where these birds were banded in Nebraska and re-sighted in their winter range along the Gulf Coast. Map courtesy of Lauren Dinan NGPC

Piping Plovers arrive nearly 2–3 weeks earlier in the spring than Interior Least Terns. Distinguishing features of these small shorebirds include sandy gray backs and wings, a bold black band across its chest, and bright orange legs and beak. They typically lay four eggs; it takes about four weeks for the eggs to hatch and another four weeks

before their babies can fly. Interior Least Terns can be seen diving to capture small fish in rivers and ponds near their nesting colonies. These small, mostly white terns are recognized by the white triangle on their forehead and distinctive black crown. They typically lay 2 or 3 eggs; it takes about 3 weeks for their eggs to hatch and another three weeks before their babies can fly.

Upon arrival in spring, both species seek out sparsely vegetated, sandy shorelines and mid river sandbars where they establish territories, build nests, and feed and care for their young. In Nebraska, some of the appealing and most reliable habitat of this sort is found along the beaches of sand and gravel pits.

Sand and gravel mining companies have been mining large quantities of high quality aggregates at sites along Nebraska's rivers for decades. This industry is an important part of our state's economy as it generates millions of dollars in revenue every year and provides useful products and materials for building roads, home construction, concrete production, landscaping, and glass manufacturing, to name a few. Some of the best aggregate sources in Nebraska are found along the Platte, Elkhorn, and Loup rivers. Once aggregates



Photo Credit: Mary Bomberger Brown

An adult Least Tern sits patiently on her nest. Terns typically lay 3-4 light brown speckled eggs.

"... we have always kept a watchful eye out for the birds and tried to employ production practices to deal with the seasonal nesting and brooding activities."

*-Joe Pille, Old Castle Materials
Midwest Co.
Castle Materials Midwest Co.*



Photo Credit: Mary Bomberger Brown

Once mined, aggregates are loaded in trucks and train cars and distributed nationwide.

Interior Least Tern and Piping Plover

Links:

Every May, June and July, click the link below to watch *terncam*-live video of a nesting Interior Least Tern along the Loup River: <http://ternandplover.unl.edu/aboutus/terncam.asp>

The Tern and Plover Conservation Partnership was established in 1999. Click the link below to learn more: <http://ternandplover.unl.edu/index.asp>

Information on Piping Plovers from the USFW website: <http://www.fws.gov/midwest/endangered/pipingplover/pipingpl.html>

Information on Interior Least Terns from the USFW: <http://www.fws.gov/midwest/endangered/birds/tern.html>

are found the mining process begins by removing the surface vegetation and topsoil. Next, a pit is dug, which fills with water due to the high water table, forming a lake. A dredge is placed in the lake and aggregates are removed and separated by particle size. Excess sand is then spread around the pit which forms the expanses of barren sand that Interior Least Terns and Piping Plovers find so attractive.

Because active sand and gravel mines are such busy places with a lot of large machinery and commotion, nests can be accidentally run-over by equipment, loud noises can cause birds to abandon nests, and windblown sand can cover nests. As a result sand and gravel companies have made it their corporate goal to minimize the likelihood that birds' encounter these man-made hazards.



Two tern chicks nestle together in the shade of a large dredge pipe.

In 2012, representatives of several of the leading sand and gravel companies in Nebraska (Lyman-Richey Co., Preferred Sands, Western Sand and Gravel Co. and Oldcastle Materials Midwest Co.[dba Mallard Sand and Gravel]), USFWS, and NGPC prepared a Memoranda of Understanding (MOU) to establish themselves as full partners in the conservation of these two imperiled species. These agreements focused on protecting and recovering Interior Least Tern and Piping Plover populations that nest at sand and gravel mines. This year (2012) approximately 310 Interior Least Terns and 66 Piping Plovers occupied cooperating mines in Nebraska. To ensure the safety of these birds extra efforts are put forth by all the parties to improve nesting habitat, implement on-the-ground management, routinely monitor bird populations, and most importantly practice cooperation, open communication and coordination of efforts. For these conservation efforts to be successful it has taken dedication and the awareness of everyone involved to work towards a measurable recovery goal. With

"Being responsible stewards of the land and the wildlife that inhabit it is an important corporate priority. Our involvement with the TPCP is the latest step for us to ensure habitat for the Least Tern and Piping Plovers is preserved and enhanced for future generations."

- Carol White, Lyman-Richey Corporation



Three freshly hatched plover chicks and one egg use cryptic coloration to blend into their pebble lined nest.

the joining of a shared conservation interest, an appreciation of an important industry, strategic planning, and intensive monitoring this partnership has pooled their varied resources and backgrounds to create a bright future for the birds. Thanks to these sand and gravel mining companies, and their years of dedication, the Interior Least Tern and Piping Plovers who inhabit active mines can rest assured that their fate is in good hands.

The Tern and Plover Conservation Partnership(TPCP) has been outstanding to work with, and due to their constant training and involvement, Western Sand's feelings toward the plovers and terns have changed over the years from "being a nuisance" to "amazing creatures of nature".

-Dave Brakenhoff, Western Sand & Gravel Co.